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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,382	10/29/2001	Edward H. Tegge JR.	GCSD-1170 (51233)	1988

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EXAMINER

RAHLL, JERRY T

ART UNIT

PAPER NUMBER

2874

DATE MAILED: 04/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/039,382

Applicant(s)

TEGGE ET AL.

Examiner

Jerry T Rahll

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-6,8-10,12,14,17-19 and 21-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 1,3-5,10,12,14,17-19 and 21-22 is/are allowed.
- 6) ☒ Claim(s) 6,8 and 9 is/are rejected.
- 7) ☒ Claim(s) 23-25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 23-25 are objected to because of the following informalities: these claims appear to depend from the incorrect claims. For examination purposes, claim 23 (and claims 24-25 therewith) will be considered to depend from claim 22.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 6, 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,580,698 to Ohtsuki et al. in view of U.S. Patent No. 5,879,531 to Funabashi.

5. Ohtsuki et al. describes an optical splitter with an input optical fiber (13), a stepped optical splitter circuit (14) with a plurality of branching waveguides to a plurality of output fibers (15). While Ohtsuki et al. do not specifically describe an optical pump source for pumping an

optical pump signal, such a pump source would inherently be part of the amplifier (13) described (see Columns 9-15 and Figures 1-2). Further, Ohtsuki et al. describes the signal about 1550 nm wavelength (see Columns 15 and 17).

6. Ohtsuki et al. does not specifically describe the optical splitter waveguides being laser ion doped. Funabashi describes an optical branching circuit formed with a plurality of laser ion (erbium) doped optical waveguides (see Column 1 Lines 25-39). Ohtsuki et al. and Funabashi are analogous art because they are from the same field of endeavor of signal processing with branching waveguides. At the time of invention, it would have been obvious to one of ordinary skill in the art to use the optical branching circuit of Funabashi with the signal processing system of Ohtsuki et al. to increase the amplification provided by the described amplifier (13). Therefore, it would have been obvious to combine Ohtsuki et al. with Funabashi to obtain the invention as specified in the claims.

7. Ohtsuki et al. and Funabashi do not specifically describe the pump signal wavelength as 980nm or 1480 nm. However, it is art that the pump signal for an EDFA has a wavelength as 980nm or 1480 nm, as noted by the applicant on Page 8 of the specification. Therefore, it would have been obvious to one of ordinary skill in the art to use a pump signal wavelength as 980nm or 1480 nm in view of the well-known operation of EDFA's

Response to Arguments

8. Applicant's arguments regarding claims 6, 8 and 9 filed 29 December 2003 have been fully considered but they are not persuasive. While Funabashi does not describe a stepwise branching arrangement, the use of the use of the Funabashi waveguide structure in the stepped system set-up of Ohtsuki et al. forms the splitter as described by applicant's claim 6.

9. Applicant's arguments filed 29 December 2003, with respect to claims 1, 3-5, 10, 12, 14, 17-19 and 21-25 have been fully considered and are persuasive. The rejection of claims 1, 3-5, 10, 12, 14, 17-19 and 21-25 has been withdrawn. Claims 1, 3-5, 10, 12, 14, 17-19 and 21-25 description of the signal and pumping directions being the same are not described by the prior art of record.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

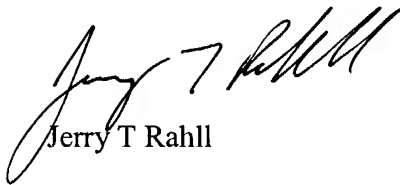
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerry T Rahll whose telephone number is (571) 272-2356. The examiner can normally be reached on M-F (8:00-5:30), with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2874

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jerry T Rahll



AKM ENAYET ULLAH
PRIMARY EXAMINER